



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,913	05/10/2002	Hiroshi Yamakawa	208524US3PCT	1931
22850	7590	05/05/2004		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER LOPEZ, CARLOS N	
			ART UNIT	PAPER NUMBER

1731

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,913

Applicant(s)

YAMAKAWA ET AL.

Examiner

Carlos Lopez

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 6-10, 14-16, 19, 20 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11-13, 17-18, 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2IDS's</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1731

DETAILED ACTION***Election/Restrictions***

Applicant's election with traverse of claims 1-5,11-13,17-18 and 21 is acknowledged. The traversal is on the ground(s) that the office has not made a proper case under the PCT rules to support the restriction requirement. This is not found persuasive because according to PCT rules an apparatus or means shall be considered to be specifically designed for carrying out a claimed process, hence does not lack unity, if the contribution over the prior art of the apparatus or means corresponds to the contribution the process makes over the prior art (See MPEP 1850 The Requirement for "Unity of Invention" Section C). In the instant case as pointed out in the previous office, the apparatus or means corresponding to the process, special technical feature, does not make any contribution to the prior art. Applicant's alleged contribution to the prior art, special technical feature, of "placing at least one glass sheet thereon, a tunnel-like heating furnace through which the bending mold is conveyed, a first group of a plurality of heating elements fixed on an inner wall of the heating furnace, and a radiation-heating device having a second group of a plurality of heating elements placed separably from the inner wall surface of the heating furnace" are clearly disclosed in EP 0443948, EP 0928779, EP 0659697 and EP 0592862. Applicant is also referred to the document on file titled "Communication Pursuant to Article 96(2) EPC" explicitly showing that the special technical feature as noted above is disclosed by the above EPO patents or alternatively as noted below in the following rejections.

Art Unit: 1731

As noted in MPEP 1850 The Requirement for "Unity of Invention" Section C), the Office considers international applications as an International Searching Authority, as an International Preliminary Examining Authority, and during the national stage as a Designated or Elected Office under 35 U.S.C. 371, PCT Rule 13.1 and 13.2 will be followed when considering unity of invention of claims of different categories without regard to the practice in national applications filed under 35 U.S.C. 111. Hence, applicant's argument's regarding MPEP section 803 is irrelevant. See also MPEP 1893.03(d).

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Bennett et al (US 5,876,477). Bennett discloses an apparatus for bending a glass sheet. As shown in figure 3, a tunnel like heating furnace comprises a bending mold 10, an integral roof heaters 11 deemed as the claimed first group of plurality of heating elements, and crease heaters 12 or 122 which are deemed as the claimed second group of plurality of heating elements attached separably to the inner wall surface of the heating furnace.

Art Unit: 1731

As for claim 2, the crease heaters 12, deemed as the second group heaters, may be used to heat one portion of the glass sheet to a greater temperature than another portion and its position adjusted as shown in figure 6 (Col. 6, lines 40-50).

As for claim 4 and 12, as noted col. 6, lines 40-50 the crease heaters position may be adjusted as best shown in figure 6 having the distance of the crease heaters 122 to the inner wall surface formed by sidewalls 104 of the heating furnace.

Claims 1-4, 11-12 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 836,560 ('560). The '560 patent discloses an apparatus for bending a glass sheet. As shown in figure 4, a tunnel like heating furnace comprises a bending mold "M", integral roof heaters 54 deemed as the claimed first group of plurality of heating elements, and crease heaters 88 which are deemed as the claimed second group of plurality of heating elements attached separably to the inner wall surface of the heating furnace.

As for claim 2, the crease heaters 88, deemed as the second group heaters, may be used to heat one portion of the glass sheet to a greater temperature than another portion and the position relative to the glass may be adjusted (Page 1, lines 54-61 and lines 70-78).

As for claims 3-4, 11-12 and 17, as noted above the crease heaters are suspended by cables 90 and 91 as shown in figure 3 and, as noted above, its distance relative to the inner ceiling wall may be adjusted in order to control the intensity of radiation being applied to the glass (see Page 1, lines 54-61 and lines 70-78).

Art Unit: 1731

Claims 1-3, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al (EP 0928779A1). Saito discloses an apparatus for bending at least one glass sheet. The apparatus comprises a tunnel like furnace as best shown in figure 1 and a bending mold 30. As best shown in figure 4, a plurality of heaters 20 are fixed on the ceiling of Saito's furnace. Supporting member 50 fixes Saito's heating elements 20 onto the ceiling of the furnace. Additionally, Saito's heating elements 20 are also deemed to be separably from the inner wall surface 111 of the heating furnace as shown in figure 4. Thus a group of Saito's heating elements are deemed as the claimed first group and another group of Saito's heating elements are deemed as the claimed second group since the claim does not recite that the first group of heating elements are fixed onto the surface of the inner wall.

As for claim 2, it is noted in paragraph 41 that the heating elements have a predetermined position to provide a temperature distribution on the glass sheet.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 13, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (EP 0928779A1) in view of Kamata (US 6,347,535). As shown in figure the type of heater used by Saito are of the heating plate type as recited in claims 5, 13, 18, and 21. Saito is silent disclosing that a heating plate is at the face

Art Unit: 1731

side of a heater wire. However, as shown by Kamata, heating elements having a heating plate have heater wires col. 18, lines 35-42. Thus at the time the invention was made it would have been obvious to a person of ordinary skill in the art to have provided a heater wire to a heating plate of a heating element of Saito as taught by Kamata in order to provide a heat source to the heat the heating plate. Additionally while Kamata and Saito are silent disclosing how the heating plate is arranged with the heater wire, it would be obvious to a person of ordinary skill in the art that the heating plate would be on the heating face side of the heater wire to thus be able to heat the heating plate. Hence the teachings of Kamata are cited to show that conventional heating elements of a heating plate type have heater wires at its heating face side in order to provide a heat source to the heating plate.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References C-F in PTO-892 have been cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1731

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700